

Please amend the application filed on even date herewith prior to proceeding with its examination.

IN THE CLAIMS

1-24 (Cancelled)

Please cancel claims 25-33, inclusive, without prejudice or disclaimer.

Please enter the following new claims.

34. (New) Process for the preparation of inactivated microorganisms containing one or more soluble and/or solubilizable substances having pharmacological activity and/or nutritional substances having pharmacological activity comprising the following steps:

- i) drawing out the endocellular mass of a suitable microorganism by means of a hypertonic treatment, separation of the drawn out endocellular mass and recovery of the empty microorganisms;
- ii) optional chemical or physical inactivation of the microorganism obtained in Step i), leaving the external membrane of the microorganism unaltered; and
- iii) intracellular loading of one or more soluble and/or solubilizable substances having pharmacological activity and/or nutritional substances having pharmacological activity, into the inactivated microorganism obtained either in Step i) or in Step ii) by means of hypo- and/or iso-tonic treatment.

35. (New) Process for the preparation of inactivated microorganisms according to claim 34, wherein:

in Step i) the drawing out of the endocellular mass is obtained by incubation in a

hypertonic solution of the same pharmacologically active substance to be loaded into the microorganism;

in Step iii) said pharmacologically active substance is already present in the solution and is loaded into the microorganism with a change of the osmolarity due to dilution of the solution to hypo-and/or isotonicity.

36. (New) Process according to claim 34 further comprising a treatment of the microorganisms with a fixative or a disinfectant agent.

37. (New) Process according to claim 34, characterized in that the hypertonic treatment in step i) is obtained by incubation of a hypertonic solution comprising:

- NaCl in concentrations higher than 0.2 M;
- optionally sodium citrate 0.03 - 0.1 M.

38. (New) Process according to claim 34, wherein said hypotonic treatment in step iii) is obtained by means of a hypotonic solution comprising:

- NaCl in concentrations lower than 0.12 M;
- optionally sodium citrate in concentrations lower than 0.025 M.

39. (New) Process according to claim 34, wherein the isotonic treatment in step iii) is performed by a 0.9% NaCl isotonic solution, optionally comprising sodium citrate 0.025 M.

40. (New) Process according to claim 34, wherein

- said hypertonic treatment in step i) is performed with a solution consisting of NaCl 1.0 M and sodium citrate 0.05 M;

- said hypotonic treatment in step iii) is performed with a solution consisting of NaCl 0.05 M and sodium citrate 0.005 M.

41. (New) Process according to claim 34, wherein
- said hypertonic treatment in step i) is performed with a solution consisting of NaCl 1.0 M and sodium citrate 0.05 M;
 - said isotonic treatment in step iii) is performed with a solution consisting of NaCl 0.9% and sodium citrate 0.025 M.
42. (New) Process according to claim 34, characterized in that the suitable microorganism is *Saccharomyces cerevisiae*.
43. (New) Process according to claim 34 wherein the soluble and/or solubilizable substances having pharmacological activity are selected in the group consisting of antibiotic, antibacterial, anti-inflammatory, antiviral, antifungal, antiparasitic substances.
44. (New) Process according to claim 43, wherein said antibiotic is oxytetracycline.
45. (New) Process according to claim 43 wherein said antibacterial is sulphadimethoxine
46. (New) Process according to claim 43 wherein the nutritional substances having pharmacological activity are selected in the group consisting of: vitamins, amino acids, active principles of vegetable origin and/or nutraceuticals.
47. (New) Process according to claim 46 wherein said active principle of vegetable origin are bioflavonoids selected in the group consisting of: sodium quercetin, catechin, isocatechin, flavans, cyanins, polyphenols, aliphatic polyalcohols, resveratrol, hyperic acid, rutinoids.
48. (New) Process according to claim 46 wherein said vitamins are selected in the group consisting of: cyanocobalamin (vitamin B12), folic acid, thiamine (Vitamin B1),

α -tocopherol, ascorbic acid.

49. (New) A microorganism obtainable according to the process of claims 34-48.